



## CONSERVATION DISTRICT USE APPLICATION (CDUA)

*All permit applications shall be prepared pursuant to HAR 13-5-31*

File No.:

Acceptance Date:

180-Day Expiration Date:

Assigned Planner:

*for DLNR Use*

### PROJECT NAME Kipahoe Road Construction Project

Conservation District Subzone: Protective

Identified Land Use: D-2

*(Identified Land Uses are found in Hawai'i Administrative Rules (HAR) §13-5-22 through §13-5-25)*

Project Address: Kipahoe Natural Area Reserve

Hawaii, 96704

Tax Map Key(s): (3) 8-8-001:005

Ahupua'a: Kipahoe

District: South Kona

County: Hawaii

Island: Hawaii

Proposed Commencement Date: November 1, 2020

Proposed Completion Date: November 1, 2021

Estimated Project Cost: \$45,000

### TYPE OF PERMIT SOUGHT



Board Permit



Departmental Permit

### ATTACHMENTS

\$ \_\_\_\_\_ Application Fee. 2.5% of project cost for Board Permits, but no less than \$250, up to a maximum of \$2500; \$250 for Departmental Permits (*ref §13-5-32 through 34*).

\$ \_\_\_\_\_ Public Hearing Fee (*\$250 plus publication costs; ref §13-5-40*)

☒ 20 copies of CDUA (*5 hard + 15 hard or digital copies*)

☒ Draft / Final Environmental Assessment (EA) or Draft / Final Environmental Impact Statement (EIS) or Statement of Exemption

☒ State Historic Preservation Division HRS 6E Submittal Form ([dlnr.hawaii.gov/shpd/review-compliance/forms](http://dlnr.hawaii.gov/shpd/review-compliance/forms))

☐ Management Plan or Comprehensive Management Plan (*ref §13-5-39*) if required

☐ Special Management Area Determination (*ref Hawai'i Revised Statutes 205A*)

☐ Shoreline Certification (*ref §13-5-31(a)(8)*) if land use is subject to coastal hazards.

☐ Kuleana documentation (*ref §13-5-31(f)*) if applying for a non-conforming kuleana use.

☐ Boundary Determination (*ref §13-5-17*) if land use lies within 50 feet of a subzone boundary.

## REQUIRED SIGNATURES

### Applicant

Name: Emma Yuen

Title; Agency: Native Ecosystem Program Manager, Division of Forestry and Wildlife

Mailing Address: 1151 Punchbowl St. #325

Honolulu, HI 96813

Contact Person & Title: Emma Yuen, Native Ecosystem Program Manager

Phone: (808) 587 4170

Email: emma.yuen@hawaii.gov

Interest in Property:

Signature:  Date: Sep 9, 2020

*Signed by an authorized officer if for a Corporation, Partnership, Agency or Organization*

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### Landowner (if different than the applicant)

Name:

Title; Agency:

Mailing Address:

Phone:

Email:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

*For State and public lands, the State of Hawai'i or government entity with management control over the parcel shall sign as landowner.*

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### Agent or Consultant

Agency:

Contact Person & Title:

Mailing Address:

Phone:

Email:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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### For DLNR Managed Lands

#### State of Hawai'i

Chairperson, Board of Land and Natural Resources

State of Hawai'i

Department of Land and Natural Resources

P.O. Box 621

Honolulu, Hawai'i 96809-0621

DES

Signature: James Q. Case

Sep 12, 2020

Date: \_\_\_\_\_

## PROPOSED USE

Total size/area of proposed use (indicate in acres or sq. ft.): 1.18 acres.

Please provide a detailed description of the proposed land use(s) in its entirety. Information should describe what the proposed use is; the need and purpose for the proposed use; the size of the proposed use (provide dimensions and quantities of materials); and how the work for the proposed use will be done (methodology). If there are multiple components to a project, please answer the above for each component. Also include information regarding secondary improvements including, but not limited to, grading and grubbing, placement of accessory equipment, installation of utilities, roads, driveways, fences, landscaping, etc.

Attach any and all associated plans such as a location map, site plan, floor plan, elevations, and landscaping plans drawn to scale (*ref §13-5-31*).

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) proposes to construct a half-mile section of road to improve access to Kipahoe Natural Area Reserve (NAR) on the southwest slopes of Hawai'i Island. This road would provide management access on State lands to connect the highway to an existing 4WD road that roughly follows the southern boundary of the NAR, greatly improving the ability of DOFAW staff to access the entire NAR. The proposed road is sited on sparsely vegetated recent lava flows.

A Final Environmental Assessment was published for this project in the June 23, 2020 issue of the Environmental Notice. This project involves the construction of 2,985 ft of unpaved 4WD road using a bulldozer to clear and level a corridor. The road will be installed between the 90 and 91 mile markers off Highway 11. A 60 ft by 60 ft area for parking, storage, and helicopter landing will be cleared and leveled as part of the road construction. This 60 ft by 60 ft area will not be visible from highway as it will be in a higher elevation up the road. This project will require compaction of lava, sparse vegetative clearing, and brief noise disturbances. The crew will be required to follow the contract sanitation protocol which requires dedicated gear to prevent the spread of alien plant species.

An archeological field inspection was conducted by Cultural Surveys, Hawaii of the proposed road in June and July 2020. No sites were identified, and a report was provided to SHPD. If any sites or artifacts are discovered, all work will stop and the proper authorities will be notified.

The intent of this project is to benefit native species in the project area. Staff will carefully survey the road proposed to be cleared to prevent destruction of rare species. The short-term damage to vegetation as a result of clearing will be offset by the improved management access for natural resource crews. These actions will enable the crews to benefit the native ecosystems by implementing the management plan of the Kīpāhoehoe Natural Area Reserve, which requires improved access for wildfire fighting, invasive species removal, and outplanting.



## EXISTING CONDITIONS

Please describe the following, and attach maps, site plans, topo maps, colored photos, and biological or archaeological surveys as appropriate:

### Existing access to site:

The only public access to the NAR is from the Hawaii belt road at 1,400 feet elevation. No public vehicular access is available. The proposed road will establish direct vehicular access to the NAR for managers and this access will be regulated by DOFAW through the issuance of access keys and permits if researchers or other permittees require access. The only vehicular access managers are able to use to get to the NAR is from an alternate route from the south, which takes far longer and requires permission from adjacent private landowners. This existing access is not efficient, and could be revoked at any time as no long-term agreements for access have been provided.

### Existing buildings/structures:

N/A

### Existing utilities (electrical, communication, gas, drainage, water & wastewater):

N/A

### Physiography (geology, topography, & soils):

#### Geology

Kipahoehoe lies in the shadow of its most dominant geological feature, Mauna Loa. Lava flows from Mauna Loa have continually inundated the area for the past 100,000 years. The proposed road is sited on the 1926 lava flow from Mauna Loa.

#### Soils

The ground is 'a'a lava (rLV) (USGS, 1972). The lava land has no soil covering and very limited vegetation. It is mostly hard clinkery sharp pieces of lava piled in tumbled heaps.

#### Topography

The topography is gentle sloping terrain without any major drainages.

### Hydrology (surface water, groundwater, coastal waters, & wetlands):

The surface geology of the area consists almost entirely of very permeable 'a'a lava with little soil and is very well drained. Ground water is replenished by the infiltration of rainfall that percolates through the root zone and ends up in a fresh-salt water basal lens that is increasingly brackish water as it flows to the sea. Because of the high permeability of the lava, precipitation on the project site currently percolates to the underlying groundwater, and direct runoff to the ocean rarely occurs.

The project area is within the Manuka aquifer system, a part of the Southwest Mauna Loa Aquifer Sector Area (ASEA). The Manuka aquifer system has a sustainable yield of approximately 42 million gallons per day (Waimea Water Services, Inc. 2004).

Flora & fauna (indicate if rare or endangered plants and/or animals are present):

In the section proposed for a road, there is little vegetation as it is on a recent lava flow. Several rare and endangered plant species have been observed in the vicinity of the project area. Most of these are located within the forested kipuka. No rare plants are known from the footprint of the proposed road. Specialists from the Division of Forestry and Wildlife have surveyed the proposed fenceline to avoid rare plant species.

This project is not anticipated to negatively impact native birds due to the bulldozed disturbance occurring primarily in sparsely vegetated lava areas. In forested kipuka nearby, 'Elepaio (*Chasiempis sandwichensis*), 'amakihi (*Hemignathus virens*), 'apapane (*Himatione sanguinea*) and 'i'iwi (*Vestiaria coccinea*) are common. 'I'o (*Buteo solitarius*) are frequently seen in the area, and nests have been observed in snag trees. The endangered 'akepa (*Loxops coccineus*) and Hawaii creeper (*Oreomystis mana*) are known from similar habitat in the vicinity. Kipahoehoe is considered to be critical habitat for the 'a'ala or Hawaiian crow (*Corvus hawaiiensis*). The last observation of a wild crow in the area was in the early 1980's. While it is unlikely that crows persist here, Kipahoehoe is an important site for possible reintroduction. Although little is known about them, the 'opeapea, or Hawaiian bat (*Lasiurus cinereus semotus*) is common in the vicinity of Highway 11, and undoubtedly uses trees within the Reserve as roosting sites. Little is known regarding invertebrates in Kipahoehoe. Given the relatively intact condition of the native forests, it can be assumed that the Reserve still holds a diverse fauna.

Natural hazards (erosion, flooding, tsunami, seismic, etc.):

N/A

Historic & cultural resources:

No archaeological sites have been observed in the areas where the proposed activity would take place. DOFAW has requested consultation with SHPD this proposed road project (submitted January 9, 2020 - assigned LOG 2020.00050, requesting an archeological field inspection, which DOFAW submitted on August 7, 2020 with no archeological features detected). If any sites or artifacts are discovered, all work will stop and the proper authorities will be notified.

## EVALUATION CRITERIA

The Department or Board will evaluate the merits of a proposed land use based upon the following eight criteria (*ref §13-5-30(c)*)

1. The purpose of the Conservation District is to conserve, protect, and preserve the important natural and cultural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare. (*ref §13-5-1*) How is the proposed land use consistent with the purpose of the conservation district?

This project will allow managers to continue to conserve, protect and preserve the important natural resources of Kipahoehoe. It will provide direct vehicular access to the Reserve so that managers can conduct natural resource protection efficiently and be able to quickly respond to fires.

2. How is the proposed use consistent with the objectives of the subzone of the land on which the land use will occur? (*ref §13-5-11 through §13-5-15*)

The land falls in the Protective Subzone (P- Subzone). The objective of this subzone is to protect valuable natural and cultural resources in designated areas such as restricted watersheds, marine, plant, and wildlife sanctuaries, significant historic, archaeological, geological, and volcanological features and sites, and other designated unique areas.

- A road will allow workers easier access to the reserve and to more effeciently protect the natural resources, such as plants and wildlife, found therein.

3. Describe how the proposed land use complies with the provisions and guidelines contained in chapter 205A, HRS, entitled "Coastal Zone Management" (*see 205A objectives on p. 9*).

N/A

4. Describe how the proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.

The proposed land use will disturb 1.18 acres in a linear corridor of a cleared 4WD road and small landing area. Though construction of improvement of roads would cause some limited short term damage, the benefits would far out- weigh the temporary disturbance occurring during the construction phase. The management plan specified that measures would be taken to prevent disturbance wildlife and habitat such as scheduling clearing of roadways to avoid the breeding and pupping season of bats and not clearing any trees with bats found roosting in them. Precautions will be taken, as needed, to implement this project in an environmentally sensitive area.

- As stated earlier, the major impacts from this project are vegetation related. Damage to living native plants will be restricted to within the road/clearing corridors, and will be minimized due to their being sited on predominantly unvegetated areas. No legally protected plant species have been observed near the proposed road, but an additional reconnaissance of all corridors will be made before work begins. Significant plants will be marked with flagging, and/or alignments will be shifted to avoid damage.

5. Describe how the proposed land use, including buildings, structures and facilities, is compatible with the locality and surrounding areas, appropriate to the physical conditions



and capabilities of the specific parcel or parcels.

This new road will connect to the already existing Highway that bisects the Kipahoehoe NAR. Additionally the road will be built on newer lava flows that do not have much vegetation yet. The road will connect to an existing 4WD road that roughly follows the southern boundary of the NAR, allowing the connection of the existing road and the highway through State land, and opening up DLNR management access for the entire NAR.

6. Describe how the existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon.

This road will allow crews easier access to help maintain the natural beauty of the reserve. This management includes invasive species removal, outplanting, and wildfire fighting.

7. If applicable, describe how subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.

N/A

8. Describe how the proposed land use will not be materially detrimental to the public health, safety and welfare.

Constructing a new access road will be an open invitation for the public to visit the upper Reserve. Even though a locked gate will be placed on the road, it will not exclude pedestrian traffic. The South Kona region lacks hiking opportunities, and this new access will allow the community to visit and learn about the unique native koa and 'ōhi'a forests.

## **CULTURAL IMPACTS**

Articles IX and XII of the State Constitution, other state laws, and the courts of the State, require government agencies to promote and preserve cultural beliefs, practices, and resources of Native Hawaiians and other ethnic groups.

Please provide the identity and scope of cultural, historical, and natural resources in which traditional and customary native Hawaiian rights are exercised in the area.

Pre-contact Hawaiian use of upland forests such as those in Kīpāhoehoe was likely limited to activities such as gathering plant materials, and bird-catching. A cultural study of the Reserve and surrounding lands has been prepared and is included in the Environmental Assessment as Appendix C. If any sites or artifacts are discovered, all work will stop and the proper authorities will be notified.

Identify the extent to which those resources, including traditional and customary Native Hawaiian rights, will be affected or impaired by the proposed action.

Based on the cultural study, this project is not anticipated to have any negative effects on cultural activities. This determination was made by analyzing the ethnographic and oral history interviews, as well as historical cultural source materials listed in the cultural study. The project is anticipated to benefit the native Hawaiian plants and birds traditionally gathered in this region. It also is anticipated to enhance public pedestrian access to this area.

What feasible action, if any, could be taken by the Board of Land and Natural Resources in regards to your application to reasonably protect Native Hawai'i rights?

N/A

## OTHER IMPACTS

Does the proposed land use have an effect (positive/negative) on public access to and along the shoreline or along any public trail?

This project will have no effect on access to the shoreline or any public trails. The proposed new gated road will have a positive effect on public access to facilitate pedestrian access to the Reserve.

Does the proposed use have an effect (positive/negative) on beach processes?

This project will not affect beach processes.

Will the proposed use cause increased sedimentation?

This project may cause a slight increase in localized ground disturbance in the short term but those rates will return to normal after the construction is complete. No runoff into streams or oceans is anticipated from this project due to the highly porous nature of the lava terrain and lack of streams.

Will the proposed use cause any visual impact on any individual or community?

A new gated road will be visible from Highway 11 approximately between mile marker 90 and 91. This stretch of Highway is in a undeveloped area.

Please describe any sustainable design elements that will be incorporated into the proposed land use (*e.g. the use of efficient ventilation and cooling systems; renewable energy generation; sustainable building materials; permeable paving materials; efficient energy and water systems; efficient waste management systems; etc.*).

The road will not be paved and thus it will remain permeable.

If the project involves landscaping, please describe how the landscaping is appropriate to the Conservation District (*e.g. use of indigenous and endemic species; xeriscaping in dry areas; minimizing ground disturbance; maintenance or restoration of the canopy; removal of invasive species; habitat preservation and restoration; etc.*)

Crews will keep land disturbance to a minimum. No legally protected plant species have been observed near the proposed road, but an additional reconnaissance of all corridors will be made before work begins. Significant rare plants will be marked with flagging, and alignments will be shifted to avoid damage.

Please describe Best Management Practices that will be used during construction and implementation of the proposed land use.

The proposed bulldozing of the road will occur outside of bat pupping season (April to June) to avoid damaging roosting trees, however it is unlikely that bats are roosting in trees along the road corridor as vegetation is very sparse.

Little is known regarding invertebrates in Kīpāhoehoe. However, due to the fact that the road is recent lava flows, the affect on native invertebrates is anticipated to be minimal.

Weed and rapid 'ōhi'a death introduction will be minimized by ensuring that all heavy equipment, tools, boots, etc. have been cleaned before entering the project area. The long-term management plan for the Reserve includes regular monitoring and control of newly introduced species of non-native plants along fence lines and access roads.

Please describe the measures that will be taken to mitigate the proposed land use's environmental and cultural impacts.

This project is anticipated to be beneficial for the environment and culture.

## SINGLE FAMILY RESIDENTIAL STANDARDS

Single Family Residences must comply with the standards outlined in HAR Chapter 13-5, Exhibit 4. Please provide preliminary architectural renderings (e.g. building foot print, exterior plan view, elevation drawings; floor plan, etc.) drawn to scale.

### SIZE OF LOT

	Existing	Proposed	Total
Proposed building footprint			
Paved areas/ impermeable surfaces			
Landscaped areas			
Unimproved areas			

### SETBACKS

Front:

Side:

Back:

### SHORELINE PROPERTIES

Average Lot Depth (ALD):

Average annual coastal erosion rate:

Minimum shoreline setback based on Exhibit 4:

Actual shoreline setback or proposed structure:

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### MAXIMUM DEVELOPABLE AREA

The Maximum Developable Area includes all floor areas under roof, including first, second, and third stories, decks, pools, saunas, garage or carport, and other above ground structures.

Maximum Developable Area based on Exhibit 4:

Actual Developable Area of proposed residence:

Actual height of the proposed building envelope as defined in Exhibit 4:

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### COMPATIBILITY

Provide justification for any propose deviation from the established residential standards.

How is the design of the residence compatible with the surrounding area?

If grading is proposed, include a grading plan which provides the amount of cut and fill. Has grading or contouring been kept to a minimum?



## CHAPTER 205A – COASTAL ZONE MANAGEMENT

Land uses are required to comply with the provisions and guidelines contained in Chapter 205A, Hawai'i Revised Statutes (HRS), entitled "Coastal Zone Management," as described below:

- **Recreational resources:** Provide coastal recreational opportunities accessible to the public.
- **Historic resources:** Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.
- **Scenic and open space resources:** Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.
- **Coastal ecosystems:** Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.
- **Economic uses:** Provide public or private facilities and improvements important to the State's economy in suitable locations.
- **Coastal hazards:** Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.
- **Managing development:** Improve the development review process, communication, and public participation in the management of coastal resources and hazards.
- **Public participation:** Stimulate public awareness, education, and participation in coastal management.
- **Beach protection:** Protect beaches for public use and recreation.
- **Marine resources:** Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

## CERTIFICATION

I hereby certify that I have read this completed application and that, to the best of my knowledge, the information in this application and all attachments and exhibits is complete and correct. I understand that the failure to provide any requested information or misstatements submitted in support of the application shall be grounds for either refusing to accept this application, for denying the permit, or for suspending or revoking a permit issued on the basis of such misrepresentations, or for seeking of such further relief as may seem proper to the Land Board.

I hereby authorize representatives of the Department of Land and Natural Resources to conduct site inspections on my property. Unless arranged otherwise, these site inspections shall take place between the hours of 8:00 a.m. and 4:30 p.m.

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*Signature of authorized agent(s) or if no agent, signature of applicant*

## AUTHORIZATION OF AGENT

I hereby authorize \_\_\_\_\_ to act as my representative and to bind me in all matters concerning this application.

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*Signature of applicant(s)*

**Signature:** 

**Email:** david.g.smith@hawaii.gov